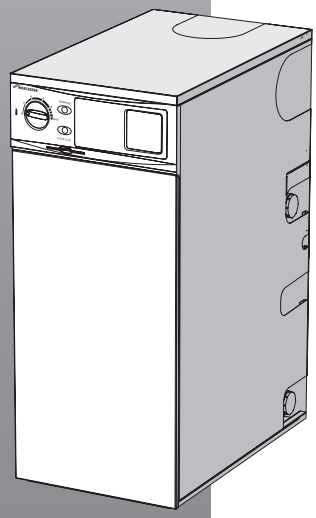
8 716 106 255b 30/3/10 14:20 Page 1

USER INSTRUCTIONS & CUSTOMER CARE GUIDE

FLOOR STANDING OIL FIRED CONDENSING BOILER CONVENTIONAL FLUE & ROOM SEALED FLUE

GREENSTAR DANESMOOR 18/25

FOR FULLY PUMPED OPEN VENT AND SEALED CENTRAL HEATING SYSTEMS AND DOMESTIC HOT WATER CYLINDERS



THE BOILER IS FOR USE WITH KEROSENE (28 SECOND OIL) ONLY

UK

WORCESTER
Bosch Group

CONTACT INFORMATION

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USER INSTRUCTIONS & CUSTOMER CARE GUIDE

PLEASE READ THESE INSTRUCTIONS CAREFULLY BEFORE OPERATING YOUR BOILER

THESE INSTRUCTIONS ARE APPLICABLE TO THE WORCESTER, BOSCH GROUP BOILER MODEL(S) STATED ON THE FRONT COVER OF THIS MANUAL ONLY AND MUST NOT BE USED WITH ANY OTHER MAKE OR MODEL OF BOILER.

THE INSTRUCTIONS APPLY IN MAINLAND UK ONLY AND SHOULD BE FOLLOWED EXCEPT FOR ANY STATUTORY OBLIGATION.

IF YOU ARE IN ANY DOUBT CONTACT THE WORCESTER, BOSCH GROUP TECHNICAL SUPPORT.

THIS BOILER MUST BE INSTALLED BY A OFTEC REGISTERED, COMPETENT PERSON. FAILURE TO INSTALL CORRECTLY COULD LEAD TO PROSECUTION.

PLEASE LEAVE THIS GUIDE, THE INSTALLATION INSTRUCTIONS AND THE COMPLETED CHECKLIST WITH THE USER.

NOTE: A CHECKLIST AND SERVICE INTERVAL RECORD CAN BE FOUND AT THE REAR OF THE INSTALLATION, COMMISSIONING AND SERVICE INSTRUCTIONS.

ABBREVIATIONS:

SEDBUK Seasonal Efficiency for Domestic Boilers in the United Kingdom.

OFTEC Oil Firing Technical Association for the Petroleum Industry.

CONTENTS

INTRODUCTION
SAFETY PRECAUTIONS 2

USING YOUR BOILER
CONTROLS 3
OPERATING THE BOILER
Switching the boiler on/off 4
Setting the heating temperature 4
Controlling central heating 4
Frost protection 5
Fault conditions 6
Fault finding 7

MAINTENANCE
MAINTAINING YOUR BOILER 8
SERVICING 9

GENERAL INFORMATION
VENTILATION INFORMATION 10 - 11
GENERAL NOTES 12

ENERGY SAVING
TIPS ON ENERGY SAVING 13

GUARANTEE
FAULT OR BREAKDOWN 14
YOUR GUARANTEE AND REGISTRATION 15

Dedicated to heating comfort

Thank you for purchasing a Greenstar oil fired condensing boiler from Worcester, Bosch Group. The company prides itself on manufacturing boilers to the strictest quality control standards throughout every stage of production.
Worcester, Bosch Group has led the field in innovative boiler design and performance for more than 40 years. This heritage means all products are of exceptional quality and proven reliability.
The condensing range in particular, is extremely energy efficient, converting more of the fuel consumed into heat offering you economical running costs and value for money. It sits in SEBUK band A, at the top of the energy rated boilers available.
There is also the assurance of our no-nonsense parts and labour guarantee - backed up by an optional servicing and maintenance contract to keep your boiler operating at peak condition and efficiency.
To find out more about Worcester, Bosch Group, log onto www.worcester-bosch.co.uk.

SAFETY PRECAUTIONS

OIL FUMES OR LEAKS FROM THE BOILER:

- ✔ Extinguish any naked flames.
- ✔ Open windows and doors.
- ✔ Switch off the boiler electricity supply.
- ✔ Isolate the fuel supply to the boiler.
- ✔ Contact installer/service engineer.

IMPORTANT:

This boiler must only be operated by a responsible adult who has been instructed in, understands and is aware of the boiler's operating conditions and effects.

HEALTH & SAFETY:

The appliance contains no asbestos and no substances have been used in the construction process that contravene the COSHH Regulations (Control of Substances Hazardous to Health Regulations 1988). Where applicable, the CE mark indicates compliance with relative EU Directives.

COMBUSTIBLE AND CORROSIVE MATERIALS:

Do not store or use any combustible materials (paper, thinners, paints etc.) inside or within the vicinity of the boiler.

The combustion air must be kept clear of chemically aggressive substances which can corrode the boiler and invalidate any warranty.

FITTING & MODIFICATIONS:

Fitting the boiler and any controls to the boiler may only be carried out by a competent engineer in accordance with the relevant Installation Regulations.

Flue systems must not be modified in any way other than as described in the fitting instructions.

Any misuse or unauthorised modifications to the boiler, flue or associated components and systems could invalidate the warranty. The manufacturer accepts no liability arising from any such actions, excluding statutory rights.

This boiler is suitable for use with kerosene only, no other fuel may be used.

DO NOT OPERATE THE APPLIANCE WHEN:

The appliance, flue or system is incorrectly fitted, faulty or damaged.

The flue terminal outlet is obstructed or damaged.

There are fumes, fuel leaks or fuel smells from the fuel supply, appliance or internal flue system.

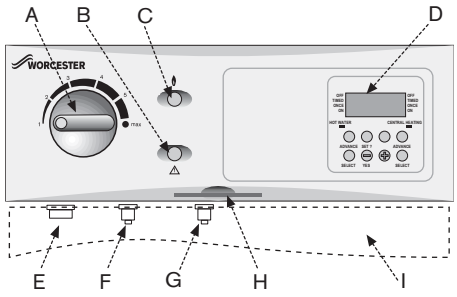
The system is empty, frozen or unpressurised (sealed systems).

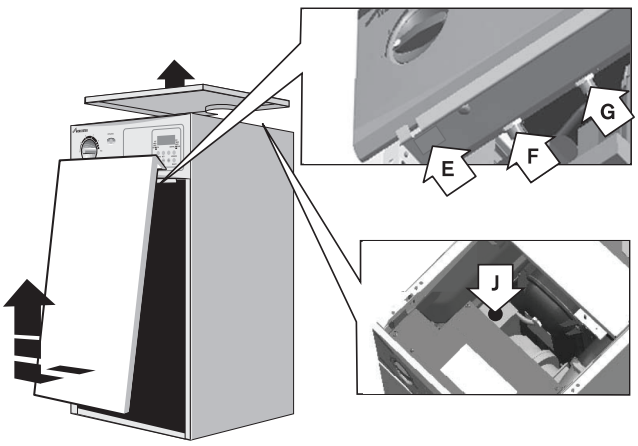
The condensate pipe is blocked or restricted.

The appliance clearances are inadequate.

The air supply is restricted or vents damaged.

A Temperature control
B Lockout indicator
C Heating demand indicator
D Optional internal programmer (see instructions supplied with programmer for details)
E Reset button - lockout (behind front panel)*
*The alternative reset button is accessed by removing the top panel on the boiler and pressing the reset button on the control box of the burner (see diagram below).
F Reset button - flue overheat thermostat (behind front panel)
G Reset button - boiler overheat thermostat (behind front panel)
H Holder for quick reference guide
I Front panel





Lockout reset button locations

Remove front panel (pull bottom of panel out and lift to remove) to access Burner Reset Button (E) and Thermostat reset buttons (F and G).

***Alternative reset location**

If the reset button under the control panel does not reset the burner, remove top panel to access Alternative Burner Reset Button (J).

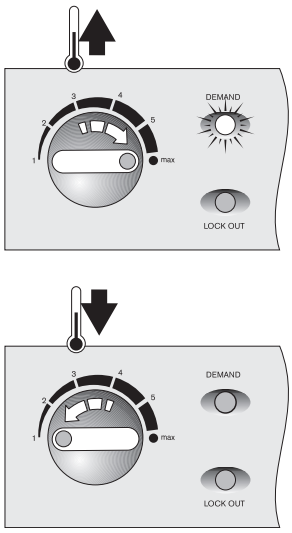
OPERATING THE BOILER

SWITCHING THE BOILER ON/OFF:

- To switch on the boiler; turn on the water, oil and electricity supply to the boiler.
- Check the programmer/timer is correct and is set to ON.
- Set the room thermostat to the desired setting.
- Open and set thermostatic radiator valves as required.
- Turn the boiler water temperature control to the required setting.
- To switch off the boiler; turn the programmer/timer to OFF for heating and hot water.
  If the boiler is left unused and exposed to freezing conditions; shut off all the mains supplies, isolate the boiler and drain the system and boiler.

SETTING TEMPERATURE:

- Turn the control clockwise to increase the water temperature. The demand light will illumnate until the water reaches the set temperature. Once the set temperature is reached the demand light extinguishes
- Turn the control anti-clockwise to reduce the water temperature.



The minimum and maximum ranges of the temperature control positions are approximately 55°C to 80°C.

CONTROLLING CENTRAL HEATING:

- Set the programmer/timer to the correct time with the required ON/OFF periods.
- Turn the room thermostat to the temperature required.
- Set thermostatic radiator valves to the required temperature for each room.

8 716 106 255b 30/3/10 14:20 Page 7

FROST PROTECTION:

- Frost thermostats can be wired into the boiler.
- Frost protection should be fitted to the system where the system is most exposed and at risk of freezing.

If there is no hot water or heating, check page 6 and 7 for fault condition guidance.

OPERATING THE BOILER

FAULT CONDITIONS:

The Demand and Lockout lights can indicate some basic fault conditions.

Normal operation:

a) Demand light:

- Light ON; demand for heat from heating/hot water system.
- Light OFF; boiler not firing, no demand from heating/hot water system.

Demand and Lockout lights:

b) Both lights ON, boiler not firing:

- Check the oil level in the oil storage tank.
- Press reset button (A). Boiler should fire.
- If no response, wait 2 minutes and press alternative reset button (C) (see digaram below).
- If lockout light stays on, do not attempt further resets. Contact your service engineer for advice.

c) Both lights OFF, boiler not on, no heating/hot water:

- Ensure there is a power supply to the boiler.
- Check that the programmer is set to on.
- Press reset buttons (B) for heating.
- If the deman light remains off, contact your service engineer for advice.

ACCESSING RESET BUTTONS:

Reset buttons (A & B):

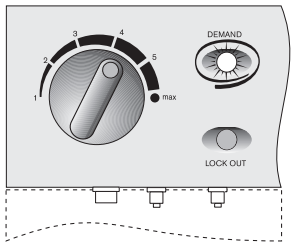
- To remove front panel (D) pull bottom of panel away from the base and lift to remove.
- To replace, realign ball studs and push back into place.

Alternative lockout reset button (C):

- Pull top panel (E) squarely upwards to remove.
- To replace, realign ball studs and push back into place.

Always keep pressure to the edges of the panels to avoid accidental damage.

a)



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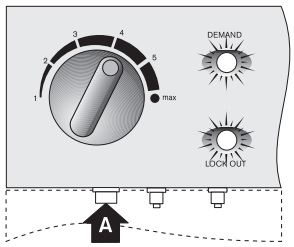
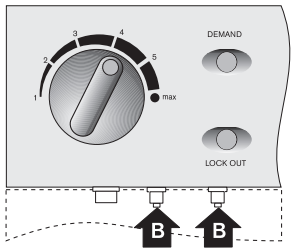
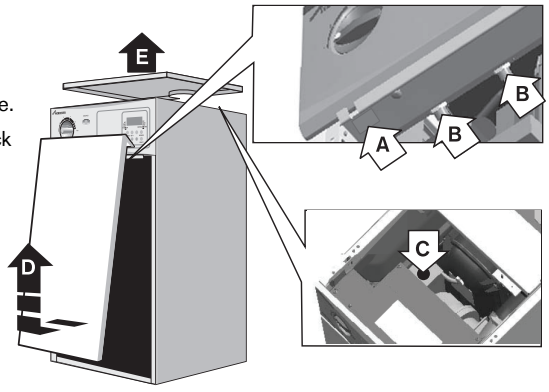


c)





Problem	Cause	Remedy
Desired room temperature is not reached	Thermostatic radiator valve(s) set too low	Increase thermostatic radiator valve setting(s)
	Room thermostat set too low	Increase room thermostat setting
	Temperature control on boiler set too low	Increase temperature control setting
	Air trapped in heating system	Bleed radiators and recharge heating system
Desired room temperature exceeded by large amount	Radiators are too hot	Turn down thermostatic radiator valves / room thermostat / boiler temperature control setting
Temperature rises instead of falling	Clock is incorrectly set	Check setting
No display or display unit does not respond	Momentary power failure	Switch off boiler at master switch, wait a few seconds then switch on again
Hot water temperature too low	Hot water temperature set too low	Check setting of cylinder thermostat then boiler temperature control setting
	Tank cold	Check programmer timings

MAINTAINING YOUR BOILER

Your new boiler represents a long term investment in a reliable, high quality product.

In order to realise its maximum working life and to ensure it continues to operate at peak efficiency and performance, it is essential that servicing and maintenance checks are performed at least once a year by an OFTEC engineer or other suitably qualified person.

If you would like to know more about servicing options from Worcester, Bosch Group, please visit **worcester-bosch.co.uk**. Please tick the appropriate box on your warranty registration card for further details of the Worcester, Bosch Group Service Contract .

When your boiler requires servicing please contact a Worcester, Bosch Group contact centre (see inside front cover for details).

In addition to the service contract we are pleased to offer a one-off annual service or breakdown call out for your boiler.

Maintenance tips:

Regularly check the oil level in the tank.

Do not obstruct the flue outlet or the air inlet.

8 716 106 255b 30/3/10 14:20 Page 11

SERVICING:

You must have the boiler regularly serviced by a competent, qualified OFTEC registered engineer using approved spares, to help maintain the economy, safety and reliability of the boiler.

The boiler should be serviced once each year after installation unless the installation conditions and usage demand more frequent services.

IMPORTANT:- Ensure that the service engineer completes the Service Record in the checklist after each service.

The completed checklist will be required in the event of any warranty work and may be required by the local Building Control Inspector.

NOTE: The checklist and service interval record can be found at the rear of the Installation, Commissioning and Servicing Instructions.

VENTILATION INFORMATION

BOILER LOCATION:

**The boiler can be installed under a worktop as long as:

- The worktop above the boiler is easily removable for maintenance.
- There is at least 10mm clearance above the boiler.
- The front of the boiler is not enclosed.

VENTILATION:

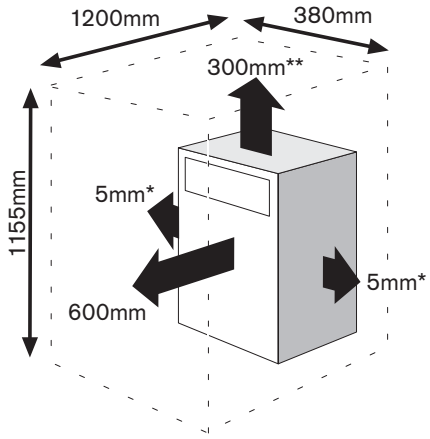
Air vents must be functional at all times and the air supply must not be restricted or contaminated.

The boiler clearances must meet the minimum shown below for servicing and venting purposes.

* If this clearance is less than 75mm the flue 'knock-out' panel sections must be removed to improve air circulation and cooling.

Do not place clothes or objects to hinder the air circulation required by the boiler.

SERVICE CLEARANCES



Conventional flue boilers require an adequate supply of fresh air which must be delivered to the boiler for combustion purposes through a permanent inlet, such as an air brick, into the area where the boiler is situated.

If a cupboard or compartment which is to be used for storage or airing is built around the boiler after installation there must be a non-combustible partition around the boiler. Further information can be found in BS 5410 which also describes venting requirements.

Conventional flued boilers:

Minimum area of of air inlet for combustion:

138cm^2 for 18/25kW appliances.

MINIMUM AIR VENT AREA (cm^2) FOR BOILERS INSTALLED IN A COMPARTMENT:

[1]Internal air to and from a space/room inside the building. [2]External air to and from directly outside the building.

Conventional flue				
kW	Internal[1] ventilation		External[2] ventilation	
	High Level	Low Level	High Level	Low Level
18/25	275	413	138	275

Room Sealed flue:				
kW	Internal[1] ventilation		External[2] ventilation	
	High Level	Low Level	High Level	Low Level
18/25	275	275	138	138

Venting compartments:

- Ventilation must be provided for boilers fitted into compartments as described in BS 5410
- A minimum of two air vents must be fitted, one at low level and another at high level onto the same wall using the same air for circulation.
- Combustion air must not be taken from a room or internal space containing a bath or shower and must not communicate with a protected area such as a hall, stairway, landing, corridor, lobby, shaft etc.
- Air vents must allow access for clean free air and must be sited to comply with the flue terminal position requirements.
- Air ducting runs must not exceed 3m.
- Low level air vents must be less than 450mm from the floor.
- A warning label must be attached to the vents with a statement to the effect:

  ''Do not block this vent.
  Do not use for storage''.

GENERAL NOTES

To get the best from your boiler. please read these instructions carefully.

CENTRAL HEATING SYSTEMS

During the first few hours of operation of the central heating system, check that all radiators are being heated at an even rate. If the top of a radiator is at a lower temperature than the bottom then it should be vented by releasing air through the venting screw at the top of the radiator. Ask your installer to show you how this is done. Repeated venting will reduce the quantity of water in the system and this must be replenished for safe and satisfactory operation of the boiler.

When excessive venting or water leaks are found in the system you must contact a service engineer to inspect the installation and rectify any fault.

Only use additives compatible with the boiler and system. Use of incompatible additives can cause damage and will invalidate the boiler guarantee.

CONDENSATE DRAIN

This is a condensing boiler and the terminal will, at times give out a plume of water vapour. This is quite normal.

The boiler also produces quantities of condensate which is discharged regularly via a pipe to drain. This pipe must not be blocked or altered in any way.

CLEARANCES - SERVICE

Your installer will have provided adequate space around the boiler for safety and servicing access. Do not restrict this space with the addition of cupboards, shelves etc. next to the boiler.

ROOM THERMOSTAT

A room temperature controller must be fitted to control the central heating. Refer to instructions supplied with the thermostat for information on siting and setting.

THERMOSTATIC RADIATOR VALVES

It is recommended that this type of valve is fitted to all but one of the radiators (or at least those in the sleeping accommodation). The remaining radiator, which must be where the room thermostat is located, should be un-controlled and must be left open.

8 716 106 255b 30/3/10 14:20 Page 15

Room thermostats:

Reducing the setting of the room thermostat by 1°C can reduce fuel consumption by up to 10%.

New control systems:

Upgrade your heating control system with the latest equipment available. The minimum level of control for a heating system is a programmer, interlocking room thermostat and thermostatic radiator valves.

Radiators:

More often than not radiators will be sited underneath a window, so the warm air from the radiator heats the colder incoming air from the window.

The performance of the radiator will be affected if the curtains are allowed to drape over the radiator or shelves are fitted above it.

The positioning of furniture and tables in front of the radiator should also be avoided.

It is advisable to manually adjust all radiator valves every 2-3 months to prevent them from sticking. It is also important that the plastic tops of all valves are always in position and not cracked or damaged to help prevent accidents. Care should be taken when vacuum cleaning carpets to avoid damage to valves and pipework.

The heating system and the outputs of the radiators have been carefully selected by your installer. The temperature obtainable in any given room is dependent on all radiators being operated at the same time. If you decide to turn off radiators in unused rooms, spare bedrooms etc., you may experience slightly lower room temperatures in rooms adjacent to unheated rooms.

Heating economically:

The boiler is designed to provide a high level of comfort while keeping oil consumption and the resulting environmental effect as low as possible.

The central heating control on the boiler should be set as low as possible while still maintaining a comfortable room temperature.

The temperature of each room can be set individually using the thermostatic radiator valves (except the primary room with the room thermostat).

Roof insulation:

Around 30% of the heat loss from a property is through the roof. Replace any old insulation with new insulation, preferably to a minimum thickness of 200mm.

Window frames:

Single glazed windows, particularly those with steel frames, can lose a great deal of heat.

Consideration should be given to replacement with PVCu or wooden framed double glazed units.

Curtains:

Lined curtains, or heavier full length curtains can provide excellent insulation. However, always ensure that the curtains do not drape over radiators.

Draughts:

Try to ensure that draughts around doors, windows, letterboxes and keyholes etc., are reduced by using a suitable draught excluder.

Warning: Do not block or seal any air vents that are installed to ensure the central heating boiler (or other appliance) operate safely.

FAULT OR BREAKDOWN

This boiler is supported in mainland UK by Worcester, Bosch Group, part of Bosch Thermotechnology Ltd.

Specialist trained, Worcester, Bosch Group Service Engineers are available to attend in the unlikely event that a breakdown occurs on this boiler.

No charge will be made for parts and/or labour providing:

- A boiler fault is found and the boiler has been installed within the past 24 months. Reasonable evidence of this must be supplied on request

A call-out charge will be made where:

- The boiler has been installed for over 24 months. OR
- Our Field Service Engineer finds no fault with the boiler (see Note). OR
- Evidence cannot be provided that the first year service inspection has been carried out. (i.e. an entry in the service interval record found at the rear of the boiler installation and servicing manual). OR
- The cause of breakdown is misuse or with other parts of your plumbing/heating system, or with equipment not supplied by Bosch Thermotechnology Ltd.

NOTE: NO BOILER FAULT IS FOUND ON OVER 30% OF ALL SERVICE CALL OUTS.

Please read this guide carefully to gain a good understanding of the operation of your boiler. In the case of a suspected fault, refer to the fault finding section of this guide.

If in doubt contact our Technical Support

In the event of an boiler fault or breakdown please contact our Service Department. Your service administrator will arrange for an Engineer to call with the minimum of delay. Under normal circumstances this will be from 1 to 3 working days (excluding weekends) for priority breakdown situations (no hot water and/or heating).

Invoices for attendance and repair work carried out on this boiler by any third party will not be accepted.

BOILER DATA LABEL

The data label can be found on the inside of the boiler on top of the control box.

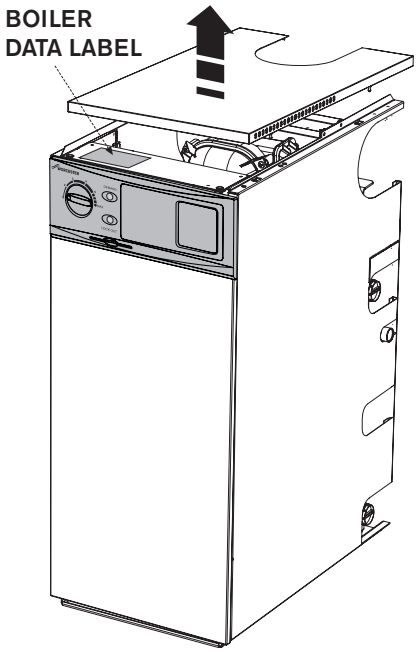
To access:

- Lift top panel to release lugs.

To replace top panel:

- Replace the top panel and gently push down (from the edges so as not to damage the panel) until it clips back into place.

(You can record this information on the inside back cover of this manual.)



GUARANTEE REGISTRATION

You should complete and return the postpaid Guarantee Registration Card within 30 days of installation.

Returning your card will register you as the owner of your new boiler and will assist us in maintaining an effective and efficient customer service by establishing a reference and permanent record for your boiler.

This does not affect your statutory rights.

For your own record:

Model _____

Serial No. _____

(See identity label inside boiler casing)

Type / size _____

Date of installation _____

Installer details _____

YOUR GUARANTEE

This boiler is guaranteed against faulty materials or workmanship for a period of 24 calendar months (60 months for the primary heat exchanger) from the date of installation subject to the following conditions:

- That during the period of this guarantee any components of the unit which are proved to be faulty or defective in manufacture will be exchanged or repaired free of material charges and free of labour charges if repaired directly by Bosch Thermotechnology Ltd. **Please be aware that invoices for attendance and repair of this boiler by third parties will not be accepted for payment by Bosch Thermotechnology Ltd.**
- That the householder may be asked to prove, when requested, the date of installation, that the boiler was correctly commissioned and, where appropriate, that the 12 month service inspection has been carried out to the satisfaction of Bosch Thermotechnology Ltd, when requested. The guarantee card must then be returned within 30 days of installation.
- That any product or part thereof returned for servicing under the guarantee must be accompanied by a claim stating the Model, Serial Number and Date of Installation.
- That Bosch Thermotechnology Ltd will not accept responsibility for damage caused by faulty installation, neglect, misuse or accidental damage and non-observance of the instructions contained in the Installation and Users Instructions leaflets.
- That the boiler has been used only for normal domestic purposes, for which it was designed.
- This guarantee applies only to equipment purchased and installed in mainland UK.

This guarantee is given in addition to all your normal statutory rights.

Worcester, Bosch Group is a brand name of Bosch Thermotechnology Ltd.

WORCESTER Bosch Group GREENSTAR DANESMOOR 18/25
8 716 106 255b (03.2010)

NOTES

8 716 106 255b 30/3/10 14:20 Page 19

NOTES

If the boiler fails to give complete satisfaction, please check the following before calling for a service engineer:-

General checks

1. Oil level in the tank
2. Power to the boiler
3. All control settings

Dedicated to heating comfort
Worcester, Bosch Group
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